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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,686	01/20/2000	LOI NGUYEN	93-C-078C1 (1678-20)	4788
30431	7590	01/21/2005	EXAMINER	
STMICROELECTRONICS, INC. MAIL STATION 2346 1310 ELECTRONICS DRIVE CARROLLTON, TX 75006			WILLIAMS, ALEXANDER O	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/488,686

**Applicant(s)**

NGUYEN ET AL.

**Examiner**

Alexander O Williams

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-25, 27 and 33 is/are allowed.
- 6) ☒ Claim(s) 26-32 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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Serial Number: 09/488686      Attorney's Docket #: 93-C-078C1-

RE(1620)

Filing Date: 1/20/00;

Applicant: Nguyen et al.

Examiner: Alexander Williams

Applicant's RCE, filed 10/20/03 has been acknowledged.

Applicant's Amendment, filed 9/22/03 has been acknowledged.

Applicant is reminded of the continuing obligation under 37 CFR 1.178(b), to timely apprise the Office of any prior or concurrent proceeding in which Patent No. 5,710,461 is or was involved. These proceedings would include interferences, reissues, reexaminations, and litigation.

Applicant is further reminded of the continuing obligation under 37 CFR 1.56, to timely apprise the Office of any information which is material to patentability of the claims under consideration in this reissue application.

These obligations rest with each individual associated with the filing and prosecution of this application for reissue. See also MPEP §§ 1404, 1442.01 and 1442.04.

The original patent, or a statement as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178.

Claims 1 - 25 and 34 are allowed.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Initially, it is noted that the 35 U.S.C. § 103 rejection based on a spin of glass layer, a insulating layer, and a plurality of spin of glass layers deals with an issue (i.e., the integration of multiple pieces into one piece or conversely, using multiple pieces in replacing a single piece) that has been previously decided by the courts.

In Howard v. Detroit Stove Works 150 U.S. 164 (1893), the Court held, "it involves no invention to cast in one piece an article which has formerly been cast in two pieces and put together...."

In In re Larson 144 USPQ 347 (CCPA 1965), the term "integral" did not define over a multi-piece structure secured as a single unit. More importantly, the court went further and stated, "we are inclined to agree with the solicitor that the use of a one-piece construction instead of the [multi-piece]

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structure disclosed in Tuttle et al. would be merely a matter of obvious engineering choice" (bracketed material added). The court cited In re Fridolph for support.

In re Fridolph 135 USPQ 319 (CCPA 1962) deals with submitted affidavits relating to this issue. The underlying issue in In re Fridolph was related to the end result of making a multi-piece structure into a one-piece structure. Generally, favorable patentable weight was accorded if the one-piece structure yielded results not expected from the modification of the two-piece structure into a single piece structure.

Therefore, it would have been obvious to one of ordinary skill in the art to use a spin of glass layer and insulating layer as a plurality spin of glass layers as "merely a matter of obvious engineering choice" as set forth in the above case law.

Claims 26, 28 to 32 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Prior Art Figure 1.

Applicant's Prior Figure 1 show an integrated circuit SRAM cell formed in a semiconductor substrate 100, a plurality of active transistor regions being formed in the substrate, the SRAM cell comprising: a first conductive layer 130 on the semiconductor substrate; a second conductive layer 230 disposed over the first conductive layer; an interlevel dielectric 150 disposed on the second conductive layer and including three insulating layers, two of the three insulating layers being separately planarized spin-on glass layers (the two layer being the claimed two of the three insulating layers being separately planarized spin-on layers can be the two section of 150 above 232 that are separated from each other and can be considered planarized spin on glass layers being separately planarized spin-on layers and the third insulating layer can be the upper portion of one of the spin-on layers); an insulating layer (this insulating layer can be also another portion of the upper portion of 150) on the interlevel dielectric; and a third conductive layer 330.

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Therefore, it would have been obvious to one of ordinary skill in the art to use a spin of glass layer as a plurality spin of glass layers as "merely a matter of obvious engineering choice" as set forth in the above case law.

Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Any such indication as to the allowability of these claims is reserved until which time a suitable response is filed.

## Response

Applicant's arguments filed 9/23/03 have been fully considered, but are moot in view of the modified grounds of rejections detailed above. Applicant's arguments on pages 4-5 have been considered but are not found to be persuasive. Applicant's arguers that claim 26 has been amended to recite in apart, limitation similar to respective limitations in the allowed claims 7 and 12, and thus renders claim 26 allowable is not to be allowable or persuasive. For example, claim 7 claims "a patterned interlevel dielectric ...including multiple independently planarized layers of dielectric material thereon, said multiple independently planarized layers of dielectric material including at least three different layers of dielectric material, with at least two of said layers of dielectric material being independently planarized layers of spin on glass." Applicant's amendment claim 26 claims "an interlevel dielectric disposed on the second conductive layer and including three insulating layers, two of the three insulating layers being separately planarized spin-on glass layers." Multiple independently planarized layer of dielectric material of **different** layers is not similar to multiple independently planarized layers of dielectric material, therefore, the art of record remain outstanding as rejected above.

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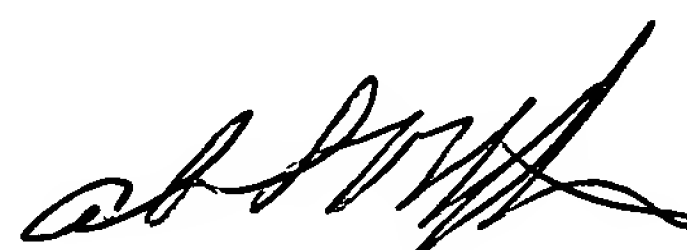
Field of Search	Date
U.S. Class and subclass: 257/754,760,640,904,752,903,350,380-382,755- 758,908,905,384,760,640	4/30/02 1/18/05
Other Documentation: foreign patents and literature in 257/754,760,640,904,752,903,350,380-382,755- 758,908,905,384,760,640	4/30/02 1/18/05
Electronic data base(s): U.S. Patents EAST	4/30/02 1/18/05

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander O Williams whose telephone number is (571) 272 1924. The examiner can normally be reached on M-F 6:30-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272 1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander O Williams  
Primary Examiner  
Art Unit 2826

AOW  
1/18/05